



**UNITED STATES DEPARTMENT OF COMMERCE**  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/035,944 03/06/98 FREED

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EXAMINER

WOLDETATIOS, Y

ART UNIT

PAPER NUMBER

2684

DATE MAILED:

10/02/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/035,944

Applicant(s)

FREED, JOHN G.

Examiner

Yemane Woldetatos

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 7-16-01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-12, 14-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rich et al. (5758271) in view of Younis et al. (6134430).

Claims 1, 8 and 15. Rich discloses an apparatus and a method for improving the dynamic range of a receiver, and a system for receiving and transmitting signals comprising:

a processor for determining an error rate of a received signal (the amount for gain adjustment (col. 6 lines 27)).

Rich discloses a gain controller for adjusting the gain of the receiver in response to the measured error rate of the demodulated received signal. Rich does not disclose the receiver having a low noise amplifier with an adjustable input intercept point. However, Younis teaches a low noise amplifier with an adjustable input intercept point (col. 12 lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art to modify Rich by Younis, by adding a low noise amplifier with an adjustable input intercept point in order to minimize degradation in the performance of a receiver.

Claims 2, 9 and 16. Rich as modified by Younis discloses the apparatus wherein the input intercept point is adjusted based also on a transmit power level (Fig. 1 item 112 and 108).

Claims 3-5, 10-12 and 17-19. Rich as modified by Younis discloses the limitations in claims 3-5, 10-12, and 17-19) (col. 12 line 62 to col. 13 line 10 in Younis).

Claims 7, 14 and 21. Rich as modified by Younis does not specifically mention the apparatus of claim 1, wherein a gain of the low noise amplifier is adjusted based on a received signal strength. However, this is inherent in the system.

Claims 6, 13 and 20. Rich as modified by Younis discloses the apparatus, wherein the computed error rate is a frame error rate (col. 12 line 62 to col. 13 line 2).

Claims 22-24. Rich as modified by Younis discloses the apparatus, wherein the input intercept point is adjusted independently of a change in a gain of the low noise amplifier (col. 12 lines 1-4).

#### ***Response to Request for reconsideration***

4. The amendment filed on 7-16-01 has been fully considered but is found to be ineffective to overcome the cited references.

#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane Woldetatos whose telephone number is 703-308-9596. The examiner can normally be reached on Monday thru Friday: 9-18:30, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter can be reached on 703-308-6732. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-308-6306 for regular communications and 703-308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Yemane Woldetatos  
Examiner  
Art Unit 2684



yw  
September 26, 2001



DANIEL HUNTER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600